

Lockheed Martin Corporation
Corporate Environment, Safety & Health
7921 Southpark Plaza, Suite 210 Littleton, CO 80120

LOCKHEED MARTIN 

July 31, 2000

Mr. Gerard J. Thibeault
Executive Officer
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501-3339

Dear Mr. Thibeault:

In accordance with the approved Water Supply Contingency Plan, enclosed is one copy of the **May 2000 Production Well Sampling Program** report prepared by Earth Tech for Lockheed Martin Corporation. This report presents analytical results from samples collected at Bunker Hill Basin Production Wells in May of 2000. The report includes laboratory quality assurance/quality control documentation.

If you or your staff have any comments or questions, please contact me at 303.971.1880.

Sincerely,



Stephen Evanoff, P.E., DEE
Manager, Central ESH Services

SE:eah

Enclosures

c: See Attached Distribution List

Distribution

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Greg Snyder, City of Loma Linda
Joseph Stejskal, City of San Bernardino
Dieter Wirtzfeld, City of Riverside

Mr. Gerard Thibeault
July 31, 2000
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bc: (Abbreviated report without attachments "A & B" which are available upon request)

Gallop, Johnson & Neuman
101 S. Hanley Road
St. Louis, MO 63105
Attn: Michael Re

Highland Supply Corporation
1111 Sixth Street
Highland, IL 62249
Attn: Donald E. Weder

Seven W Enterprises, Inc.
1500 Crafton Ave., P. O. Box 111
Redlands, CA 92373-1730
Attn: Janet M. Weder

Seven W. Enterprises, Inc.
1111 Sixth Street
Highland, IL 62249
Attn: Wanda M. Weder

Mr. Gerard Thibeault
July 31, 2000
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Stephen Evanoff, LMC
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Eric Hodder, LMC
Ian Hutchison, TRC
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July 31, 2000

Lockheed Martin Corporation
West Coast Project Office
2550 N. Hollywood Way, 3rd Floor
Burbank, California 91505

Attention: Mr. Eric Hodder
Project Supervisor

Subject: May 2000 Data Report
Water Supply Contingency Plan
Production Well Sampling Program
Crafton-Redlands Plume Project

Telephone

562.951.2000

Facsimile

562.951.2100

Dear Mr. Hodder:

This report presents a summary of results of the Water Supply Contingency Plan production well sampling for the month of May 2000. The Water Supply Contingency Plan (WSCP) was prepared by Lockheed Martin Corporation and submitted to the State of California Regional Water Quality Control Board (RWQCB) Santa Ana Region on September 30, 1996. The plan was conditionally approved by the RWQCB in a letter dated March 6, 1997. The WSCP for the Crafton-Redlands Plume was prepared to address maintenance of water supply to purveyors in the event that wells became impacted with trichloroethene (TCE) from the Crafton-Redlands TCE Plume. A summary of key dates and WSCP sampling program evolution is provided on Table 1.

The locations of the WSCP wells and analytical results for the May 2000 sampling event for TCE and perchlorate are shown on Figures 1 and 2, respectively. Table 2 presents a summary of analytical tests performed on each WSCP well and water system sampling point. The sampling frequency of each well is once a month for the first year. More frequent sampling, if required, is based on the analytical results as outlined in the WSCP TCE and perchlorate decision matrices, provided as Figures 3 and 4, respectively. The perchlorate decision matrix was presented in the Perchlorate Work Plan and Schedule, which was submitted to the RWQCB on August 15, 1997. The RWQCB approved the Perchlorate Work Plan on October 31, 1997. Table 3 presents a summary of the wells sampled twice monthly according to the decision matrices.

E A R T H



T E C H

RESULTS

Summaries of the analytical results for the May 2000 WSCP sampling event for TCE and perchlorate are shown on Figures 1 and 2, respectively, and presented on Table 4. Available groundwater elevation data are provided on Table 5. The water sampling field forms are provided in Attachment A. Chain-of-custody, laboratory data sheets, and Level III laboratory quality assurance/quality control (QA/QC) documentation are provided in Attachment B.

Trichloroethene

Three groundwater samples collected in May met or exceeded 2/5th the MCL for TCE (i.e., were greater than or equal to 2.0 µg/L) including: Gage 26-1 (7.6 µg/L), Gage 27-1 (9.2 µg/L) and Gage 29-2 (6.0 µg/L). The TCE impacts at Gage 26-1, Gage 27-1, Gage 29-2 and Gage 29-3 are partially attributed to the Norton AFB plume and partially attributed to the Crafton Redlands plume. In May, Gage 29-3 was off-line and not sampled.

Mountain View #2 and Richardson #1 were activated for sampling only. The purge water from Mountain View #2 and Richardson #1 were pumped to waste, and not into the system.

The Mountain View Blend – Lawton sampling point was not sampled in May because only the Mountain View #3 well was pumping into this system. The COLL Richardson Blend sampling point was not sampled in May because only the Richardson #3 well was pumping into the Richardson system. Thus, sampling of these two sample points would be redundant.

Gage 26-1 and Gage 27-1 were placed into TCE treatment in May 1999; TCE treatment was installed at Gage 29-2, Gage 29-3, and Gage 92-1 in February 2000. Therefore, these five wells will be sampled once a month for TCE when active.

Eleven of the WSCP wells have now had measured TCE concentrations averaging less than one-fifth of the MCL (i.e., < 1.0 µg/L) over the past 12 months. According to the decision matrix for sampling TCE (Figure 3), the sampling frequency for these wells may now be changed from monthly to quarterly. The next sampling event for the following eleven wells will be in July 2000:

Richardson #3	Southern Cal. Edison #2	Gage #29-1
Gage #30-1	Gage #46-1	Gage #51-1
Gage #56-1	Gage #66-1	Gage #92-2
Gage #92-3	City of Redlands Rees	

Perchlorate

In the May WSCP sampling, perchlorate was detected at or above 75 percent of the PAL (i.e., greater than or equal to 13.5 $\mu\text{g/L}$) in COLL Mountain View #2 (16 $\mu\text{g/L}$), Gage 29-2 (40 $\mu\text{g/L}$) and Gage 92-1 (18 $\mu\text{g/L}$).

Gage 29-2, Gage 29-3, Gage 51-1, Gage 92-1 and COLL Mountain View #2 wells are currently being sampled twice a month for perchlorate, if active. In May, Gage 29-3 and Gage 51-1 were off-line and not sampled.

The perchlorate impacts observed at Mountain View #2 are consistent with historic data when the well is sampled shortly after it is turned on. As stated above, water from Mountain View #2 was not pumped into the system and therefore a confirmation sample was not collected.

Six of the WSCP wells have now had measured perchlorate concentrations averaging less than one-quarter of the PAL (i.e., < 4.5 $\mu\text{g/L}$) over the past 12 months. According to the decision matrix for sampling perchlorate (Figure 4), the sampling frequency for these wells may now be changed from monthly to quarterly. The next sampling event for the following six wells will be in July 2000:

Richardson #3
Gage #56-1

Southern Cal. Edison #2
Gage #92-2

Gage #30-1
Gage #92-3

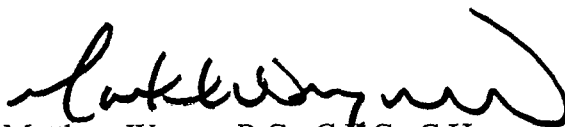
CLOSING

Earth Tech greatly appreciates being of continued service to Lockheed Martin Corporation on this project. Should you have any questions or comments, please do not hesitate to call.

Sincerely,
Earth Tech



Eric Peterson, P.E.
Program Director



Matthew Werner, R.G., C.E.G., C.H.
Project Manager

TABLES

TABLE 1

KEY PROJECT DATES AND WSCP SAMPLING PROGRAM EVOLUTION

August 2, 1996, the RWQCB – Santa Ana Region requested Lockheed Martin to submit a conceptual Water Supply Contingency Plan.
September 30, 1996, Lockheed Martin submitted the Water Supply Contingency Plan (WSCP) to the RWQCB – Santa Ana Region.
March 6, 1997, the RWQCB conditionally approved the WSCP, which included sampling eight production wells (City of Loma Linda Richardson #1, Richardson #2, Mountain View #1, Mountain View #2, Victoria Farms Mutual Water Company Wells #1 and #3, and Southern California Edison #1 and #2).
June 1997, Victoria Farms Mutual Water Company was connected of City of San Bernardino Water. Pumping ceased at VFMWC #1 and #3, and the two wells were removed from the program.
June 1997, sampling of SCE #1 was discontinued because it is not operated on a regular basis. The WSCP consists of five wells, including COLL Mountain View #1 and #2, COLL Richardson #1 and #2, and SCE #2 (AUX).
August 1997, the WSCP was expanded due to the detection of perchlorate in municipal supply wells in the Bunker Hill Basin. Twenty-six wells were added to the WSCP including nineteen City of Riverside wells, five City of Redlands wells, and two Loma Linda University wells, for a total of 31 wells.
October 1997, three City of Riverside water system sampling points were added to the WSCP, including the Gage system pipeline (Gage Delivery), the Waterman system pipeline (Iowa Booster), and the sampling station measuring outflow from the Linden and Evans Reservoirs (7 th & Chicago).
March 1998, two City of Loma Linda water system sampling points were added to the WSCP, including the Mountain View system pipeline (Mountain View Blend at Lawton) and the Richardson system pipeline (Richardson Blend).
June 1998, one City of Riverside irrigation water system sampling point (Gage Arlington) and one additional City of Loma Linda water system sampling point (Mountain View Blend at Timoteo) were added to the WSCP.
December 1998, the COLL Richardson #3 well was added to the WSCP Sampling Program.
May 1999, Sampling of Mountain View Blend at Timoteo was discontinued because it does not represent a blend sample of the Mountain View pipeline system.
December 1999, the COLL Mountain View #3 well and the Gage 98-1 well were added to the WSCP Sampling Program
February 2000, the COLL Richardson #2 well was decommissioned, and therefore removed from the WSCP Sampling Program.

TABLE 2

WSCP PRODUCTION WELL SAMPLING PROGRAM

Well Number	Well Name	Perchlorate	TCE
City of Loma Linda			
692	Mountain View #2	X	X
3106	Mountain View #3	X	X
693	Richardson #1	X	X
707	Richardson #3	X	X
City of Loma Linda Water System Sampling Points			
2967	Mountain View Blend - Lawton	X	X
2968	Richardson Blend	X	X
Mountain View Power (Formerly Southern California Edison)			
554	SCE #2 (AUX)	X	X
Loma Linda University			
267	LL Univ Anderson #2	X	
717	LL Univ Anderson #3	X	
City of Riverside (Gage System)			
252	Gage #26-1	X	X
258	Gage #27-1	X	X
259	Gage #27-2	X	X
260	Gage #29-1	X	X
219	Gage #29-2	X	X
220	Gage #29-3	X	X
218	Gage #30-1	X	X
214	Gage #31-1	X	X
215	Gage #46-1	X	X
253	Gage #51-1	X	X
216	Gage #56-1	X	X
257	Gage #66-1	X	X
644	Gage #92-1	X	X
641	Gage #92-2	X	X
642	Gage #92-3	X	X
3091	Gage #98-1	X	X
City of Riverside (Waterman System)			
273	Hunt #6	X	
271	Hunt #10	X	
272	Hunt #11	X	
City of Riverside Water System Sampling Points			
2946	Iowa Booster (Waterman)	X	X
2947	Gage Delivery (Gage)	X	X
2948	7th & Chicago (Reservoir)	X	X
3018	Gage Arlington	X	
City of Redlands			
542	COR Church St	X	
2673	COR #38	X	
535	COR Mentone Acres	X	
29	COR Orange St	X	
74	COR Rees	X	X

Notes:

TCE = Trichloroethene

Perchlorate analyzed using DHS Method (EPA 300.0 Modified)

TCE analyzed using EPA Method 502.2

TABLE 3

WSCP PRODUCTION WELL SAMPLING PROGRAM
MAY 2000 WELLS SAMPLED TWICE MONTHLY

Well Number	Well Name	Perchlorate	TCE
City of Loma Linda			
692	Mountain View #2	X	
City of Riverside (Gage System)			
219	Gage #29-2	X	X
220	Gage #29-3	X	X
253	Gage #51-1	X	
644	Gage #92-1	X	

Notes:

TCE = Trichloroethene

Perchlorate analyzed using DHS Method (EPA 300.0 Modified)

TCE analyzed using EPA Method 502.2

TABLE 4

**WSCP PRODUCTION WELL SAMPLING PROGRAM
MAY 2000 DATA RESULTS**

Well Number	Well Name	Sample Date	Perchlorate (ug/L) Del Mar	TCE (ug/L) Del Mar
City of Loma Linda				
692	Mountain View #2	5/2/00	16	0.71
692	Mountain View #2*	5/15/00	12	NA
3106	Mountain View #3	5/2/00	ND (4.0)	ND (0.5)
693	Richardson #1	5/2/00	9.1	ND (0.5)
707	Richardson #1 (Duplicate)	5/2/00	9	ND (0.5)
707	Richardson #3	5/2/00	ND (4.0)	ND (0.5)
City of Loma Linda Water System Sampling Points				
2967	Mountain View Blend - Lawton	NS	NS	NS
2968	Richardson Blend	NS	NS	NS
Mountain View Power (Formerly Southern California Edison)				
554	SCE #2 (AUX)	5/2/00	ND (4.0)	ND (0.5)
Loma Linda University				
267	LL Univ Anderson #2	5/2/00	ND (4.0)	NA
717	LL Univ Anderson #3	5/2/00	ND (4.0)	NA
City of Riverside (Gage System)				
252	Gage #26-1 ^b	5/1/00	13	7.6
258	Gage #27-1 ^b	5/1/00	6.8	9.2
259	Gage #27-2	5/1/00	9.9	ND (0.5)
260	Gage #29-1	5/1/00	9.5	ND (0.5)
219	Gage #29-2 ^b	5/1/00	40	6.0
219	Gage #29-2 ^b (Duplicate)	5/1/00	40	5.5
219	Gage #29-2 ^{a,b}	5/15/00	39	5.9
219	Gage #29-2 ^{a,b} (Duplicate)	5/15/00	39	5.7
220	Gage #29-3 ^b	NS	NS	NS
218	Gage #30-1	5/1/00	ND (4.0)	ND (0.5)
214	Gage #31-1	5/1/00	ND (4.0)	ND (0.5)
215	Gage #46-1	5/1/00	5.6	ND (0.5)
253	Gage #51-1 ^b	NS	NS	NS
216	Gage #56-1	5/1/00	ND (4.0)	ND (0.5)
257	Gage #66-1	5/1/00	10	ND (0.5)
644	Gage #92-1 ^b	5/1/00	18	1.2
644	Gage #92-1 ^{a,b}	5/15/00	18	NA
641	Gage #92-2	5/1/00	ND (4.0)	ND (0.5)
642	Gage #92-3	5/1/00	ND (4.0)	ND (0.5)
3091	Gage #98-1	5/1/00	ND (4.0)	ND (0.5)
City of Riverside (Waterman System)				
273	Hunt #6	5/2/00	7.1	NA
271	Hunt #10	5/2/00	5	NA
272	Hunt #11	NS	NS	NS
City of Riverside Water System Sampling Points				
2946	Iowa Booster (Waterman)	5/2/00	ND (4.0)	ND (0.5)
2947	Gage Delivery (Gage)	5/2/00	4.1	ND (0.5)
2947	Gage Delivery (Gage); (Duplicate)	5/2/00	4.1	ND (0.5)
2948	7th & Chicago (Reservoir)	5/2/00	ND (4.0)	ND (0.5)
3018	Gage Arlington	5/2/00	5.1	NA
City of Redlands				
542	COR Church St ^a	NS	NS	NS
2673	COR #38 ^a	NS	NS	NS
535	COR Mentone Acres ^a	NS	NS	NS
29	COR Orange St ^a	NS	NS	NS
74	COR Rees	5/2/00	5.9	ND (0.5)

Notes:

* = Twice-monthly sampling result

ND(4) = Not detected at the specified limit

NA = Not Analyzed

NS = Not Sampled

TCE = Trichloroethene

Perchlorate analyzed using DHS Method (EPA 300.0 Modified

TCE analyzed using EPA Method 502.2

a = Well sampled on quarterly basis, if active

b = TCE treatment is installed

c = Water purged to waste and not into system

TABLE 5

**SUMMARY OF WATER LEVEL MEASUREMENTS
MAY 2000 SAMPLING EVENT**

Well Number	Well Name	Measure Date	Depth to Water	Measuring Point Elevation	Groundwater Elevation	Comments
City of Loma Linda						
692	Mountain View #2	5/2/00	173	1085	912	Static
3106	Mountain View #3	5/2/00	110	1086	976	Pumping
693	Richardson #1	5/2/00	163	1077	914	Static
707	Richardson #3	5/2/00	215	1078.69	863.69	Pumping
Mountain View Power (Formerly Southern California Edison)						
554	SCE #2 (AUX)	NM	NM	1100	NM	Pumping
Loma Linda University						
267	LL Univ Anderson #2	NM	NM	1075	NM	Pumping
717	LL Univ Anderson #3	NM	NM	1070	NM	Pumping
City of Riverside (Gage System)						
252	Gage #26-1	5/2/00	87.20	1045.33	958.13	Pumping
258	Gage #27-1	5/2/00	87.20	1044.64	957.44	Pumping
259	Gage #27-2	5/2/00	100.60	1044.64	944.04	Pumping
260	Gage #29-1	5/2/00	104.80	1044.43	939.63	Pumping
219	Gage #29-2	5/2/00	80.50	1046.31	965.81	Pumping
220	Gage #29-3	5/2/00	68.70	1048.75	980.05	Static
218	Gage #30-1	5/2/00	173.20	1054.17	880.97	Pumping
214	Gage #31-1	5/2/00	133.40	1054.64	921.24	Pumping
215	Gage #46-1	5/2/00	132.80	1065.5	932.7	Pumping
253	Gage #51-1	5/2/00	100.90	1044.64	943.74	Static
216	Gage #56-1	5/2/00	178.00	1065.5	887.5	Pumping
257	Gage #66-1	5/2/00	128.30	1044.85	916.55	Pumping
644	Gage #92-1	5/2/00	162.60	1047.78	885.18	Pumping
641	Gage #92-2	5/2/00	190.90	1053.38	862.48	Pumping
642	Gage #92-3	5/2/00	192.90	1058.78	865.88	Pumping
3091	Gage #98-1	5/2/00	181.80	1058.78	876.98	Pumping
City of Riverside (Waterman System)						
273	Hunt #6	NM	NM	1015.5	NM	Pumping
271	Hunt #10	NM	NM	1017	NM	Pumping
272	Hunt #11	NM	NM	1015.7	NM	Static
City of Redlands						
542	COR Church St	5/1/00	157.0	1344.8	1187.8	Pumping
2673	COR #38	5/1/00	140.0	1193	1053	Pumping
535	COR Mentone Acres	5/1/00	218.0	1506.4	1288.4	Pumping
29	Cor Orange St	5/1/00	116.0	1282	1166	Pumping
74	COR Rees	5/1/00	243.0	1490	1247	Pumping

Notes:

All measurements reported in feet below measuring point (ft-bmp)

Water level measurements for all City of Loma Linda, City of Riverside, and City of Redlands wells were obtained by purveyor personnel.

Elevations given in feet above mean sea level (ft-msl)

NM = Not measured

NA = Data not available

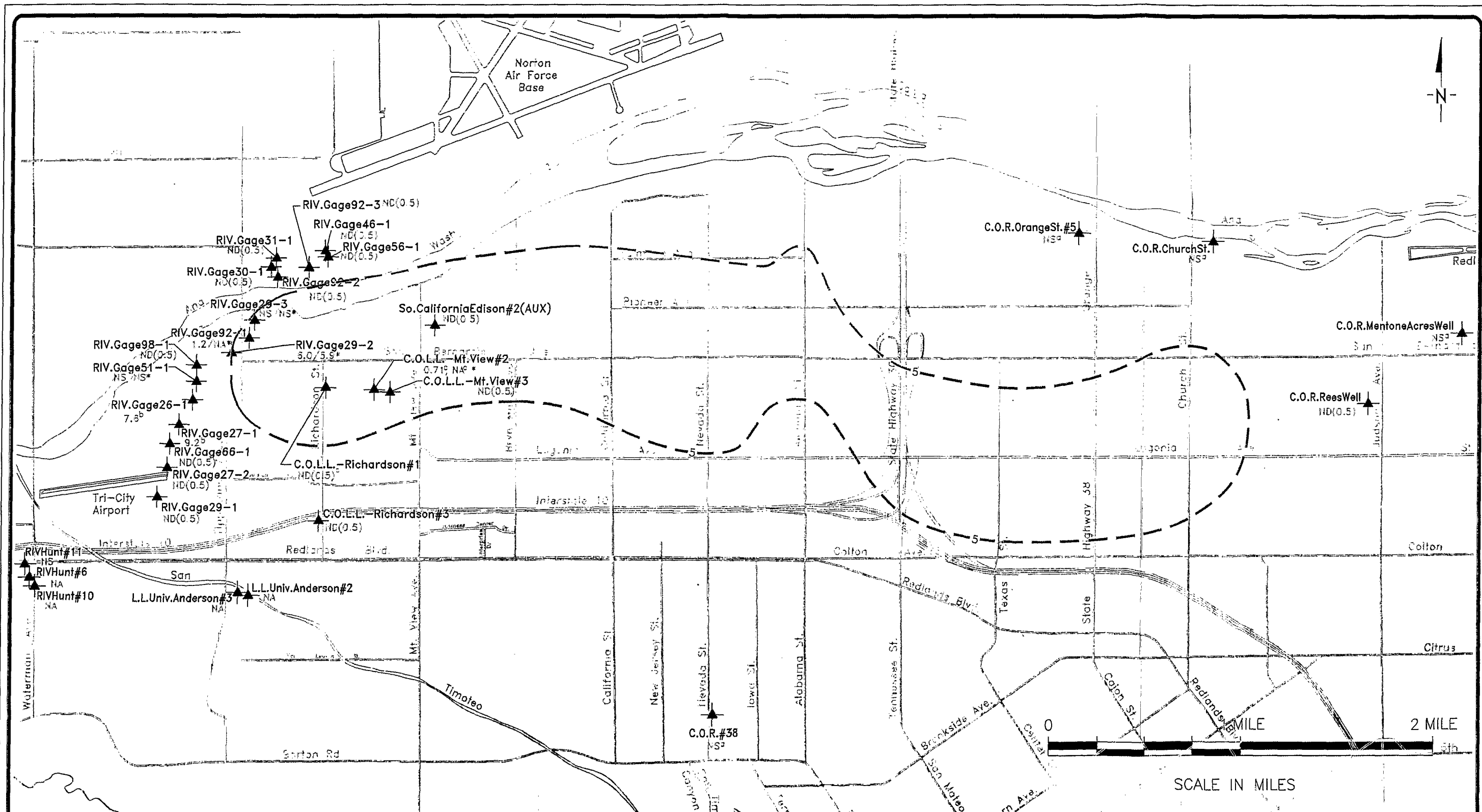
Static water levels were allowed to recover a minimum of 30 minutes to obtain a static water level measurement

TABLE 6

**WSCP PRODUCTION WELL SAMPLING PROGRAM
MAY 2000 SAMPLE IDENTIFICATIONS**

Well Number	Well Name	Sample Date	Sample Time	Sample Number Identification	Analyzed for Perchlorate	Analyzed for TCE
City of Loma Linda						
692	Mountain View #2	5/2/00	10:25	GW-5-21	Yes	Yes
692	Mountain View #2	5/15/00	9:55	GW-5-35	Yes	No
3106	Mountain View #3	5/2/00	11:00	GW-5-22	Yes	Yes
693	Richardson #1	5/2/00	9:55	GW-5-19	Yes	Yes
693	Richardson #1 (Duplicate)	5/2/00	9:55	GW-5-20	Yes	Yes
707	Richardson #3	5/2/00	9:15	GW-5-18	Yes	Yes
City of Loma Linda Water System Sampling Points						
2967	Mountain View Blend - Lawton	NS	NS	NS	NS	NS
2968	Richardson Blend	NS	NS	NS	NS	NS
Mountain View Power (Formerly Southern California Edison)						
554	SCE #2 (AUX)	5/2/00	8:35	GW-5-17	Yes	Yes
Loma Linda University						
267	LL Univ Anderson #2	5/2/00	12:08	GW-5-23	Yes	No
717	LL Univ Anderson #3	5/2/00	12:25	GW-5-24	Yes	No
City of Riverside (Gage System)						
252	Gage #26-1	5/1/00	13:15	GW-5-9	Yes	Yes
258	Gage #27-1	5/1/00	13:45	GW-5-10	Yes	Yes
259	Gage #27-2	5/1/00	14:50	GW-5-12	Yes	Yes
260	Gage #29-1	5/1/00	15:20	GW-5-13	Yes	Yes
219	Gage #29-2	5/1/00	11:50	GW-5-7	Yes	Yes
219	Gage #29-2 (Duplicate)	5/1/00	11:55	GW-5-8	Yes	Yes
219	Gage #29-2	5/15/00	9:25	GW-5-33	Yes	Yes
219	Gage #29-2 (Duplicate)	5/15/00	9:30	GW-5-34	Yes	Yes
220	Gage #29-3	NS	NS	NS	NS	NS
218	Gage #30-1	5/1/00	10:50	GW-5-5	Yes	Yes
214	Gage #31-1	5/1/00	10:25	GW-5-4	Yes	Yes
215	Gage #46-1	5/1/00	9:00	GW-5-1	Yes	Yes
253	Gage #51-1	NS	NS	NS	Yes	Yes
216	Gage #56-1	5/1/00	9:25	GW-5-2	Yes	Yes
257	Gage #66-1	5/1/00	14:15	GW-5-11	Yes	Yes
644	Gage #92-1	5/1/00	16:15	GW-5-15	Yes	Yes
644	Gage #92-1	5/15/00	9:00	GW-5-32	Yes	No
641	Gage #92-2	5/1/00	11:10	GW-5-6	Yes	Yes
642	Gage #92-3	5/1/00	9:55	GW-5-3	Yes	Yes
3091	Gage #98-1	5/1/00	15:50	GW-5-14	Yes	Yes
City of Riverside (Waterman System)						
273	Hunt #6	5/2/00	13:30	GW-5-25	Yes	No
271	Hunt #10	5/2/00	13:50	GW-5-26	Yes	No
272	Hunt #11	NS	NS	NS	NS	NS
City of Riverside Water System Sampling Points						
2946	Iowa Booster (Waterman)	5/2/00	14:30	GW-5-27	Yes	Yes
2947	Gage Delivery (Gage)	5/2/00	15:05	GW-5-28	Yes	Yes
2947	Gage Delivery (Gage); (Duplicate)	5/2/00	15:10	GW-5-29	Yes	Yes
2948	7th & Chicago (Reservoir)	5/2/00	15:35	GW-5-30	Yes	Yes
3018	Gage Arlington	5/2/00	15:55	GW-5-31	Yes	No
City of Redlands						
542	COR Church St	NS	NS	NS	N/A	N/A
2673	COR #38	NS	NS	NS	N/A	N/A
535	COR Mentone Acres	NS	NS	NS	N/A	N/A
535	COR Mentone Acres (Duplicate)	NS	NS	NS	N/A	N/A
29	COR Orange St	NS	NS	NS	N/A	N/A
74	COR Rees	5/2/00	7:55	GW-5-16	Yes	Yes

FIGURES



EXPLANATION

- ▲ Wells Currently Sampled Under the Existing WSCP Sampling Program
- 3.2^a TCE Results (µg/L)
 - a Quarterly Sampling Results
 - b Well Currently Being Treated for TCE
 - c Water Purged to Waste and not Into System

- 5 -- Approximate TCE Plume Location 5 µg/L (2000 Interpretation of Redlands Plume)
- 5 — Approximate TCE Plume Location 5 µg/L (Earth Tech June 1999 Interpretation of Norton AFB Plume)

- ND(0.5) Not Detected at Indicated Detection Limit
- NS Not Sampled
- NA Not Analyzed
- * Twice-Monthly Sampling Results

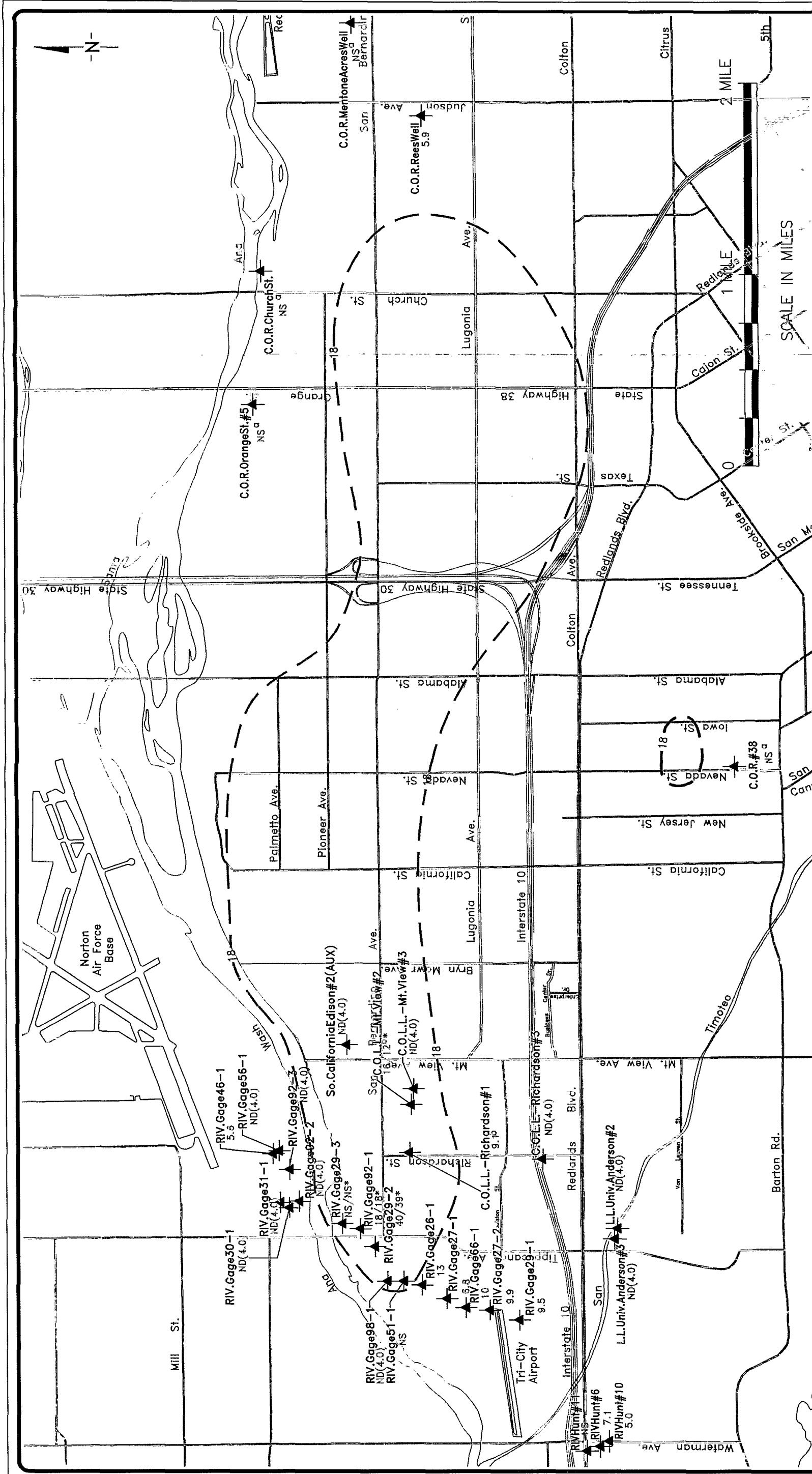
Blending Point Sampling Data

NS	C.O.L.L. Mountain View Blend at Lawton
NS	C.O.L.L. Richardson Blend
ND(0.5)	Riv. Iowa Booster (Waterman)
ND(0.5)	Riv. Gage Delivery (Gage)
ND(0.5)	Riv. 7th + Chicago (Reservoir)
NA	Gage Arlington

TITLE: WSCP Production Well Sampling Program
TCE Data Results May 2000

LOCATION: LOCKHEED MARTIN
REDLANDS, CALIFORNIA

EARTH TECH	CHECKED: Liles Cobb	FIGURE:
A tyco INTERNATIONAL LTD. COMPANY	DRAFTED: Lee Mehr	1
	PROJ.: 38872	
	DATE: 05/30/00	



EXPLANATION

- ▲ Wells Currently Sampled Under the Existing WSCP Sampling Program
- 18— Approximate 18 µg/L Perchlorate Plume Location (1998 Interpretation)
- * Twice-Monthly Sampling Results

Blending Point Sampling Data

NS	C.O.L.L. Mountain View Blend - Lawton
NS	C.O.L.L. Richardson Blend
ND(4.0)	Riv. Iowa Booster (Waterman)
4.1	Riv. Gage Delivery (Gage)
ND(4.0)	Riv. 7th + Chicago (Reservoir)
5.1	Gage Arlington

46c Perchlorate (µg/L) Results

ND(4)	Not Detected at Indicated Detection Limit
NS	Not Sampled
a	Quarterly Sampling Results
b	Water Purged to Waste and not Into System

FIGURE: 2

CHECKED:	Liles Cobb
DRAFTED:	Lee Mehr
PROJ.:	38872
DATE:	05/30/00

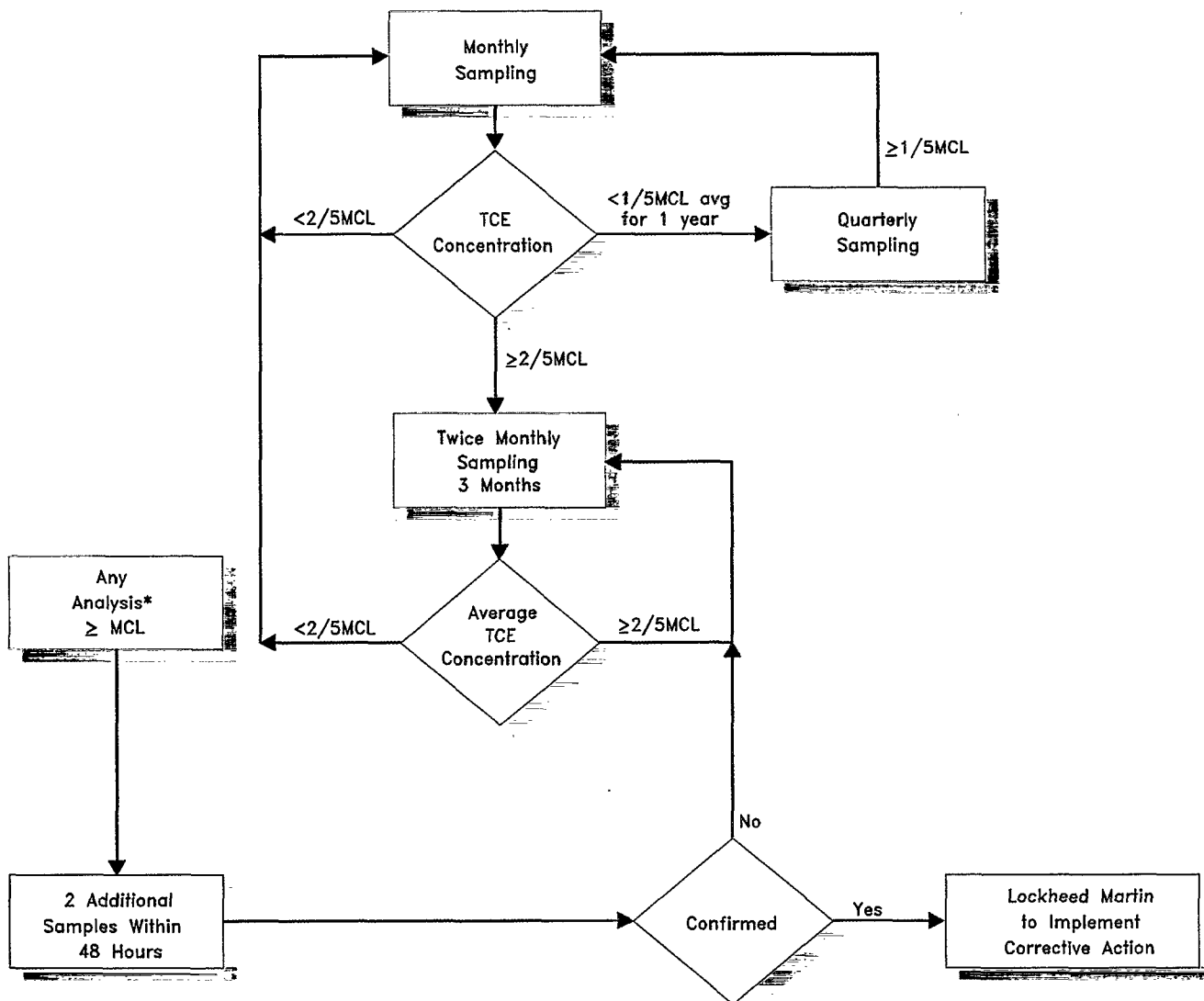
LOCKHEED MARTIN
REDLANDS, CALIFORNIA

WSCP Production Well Sampling Program
Perchlorate Data Results May 2000

FIGURE: 2

LOCKHEED MARTIN
REDLANDS, CALIFORNIA

FIGURE: 2



Footnote:

* If, at a specific well, blending is occurring to provide acceptable water for compounds other than TCE, then no corrective action may be necessary as long as the concentration of TCE is less than 5.0 µg/L in the finished water.

TCE MCL = 5 µg/L (California Regulations, Title 22, Division 4, Chapter 15, Section 64444)

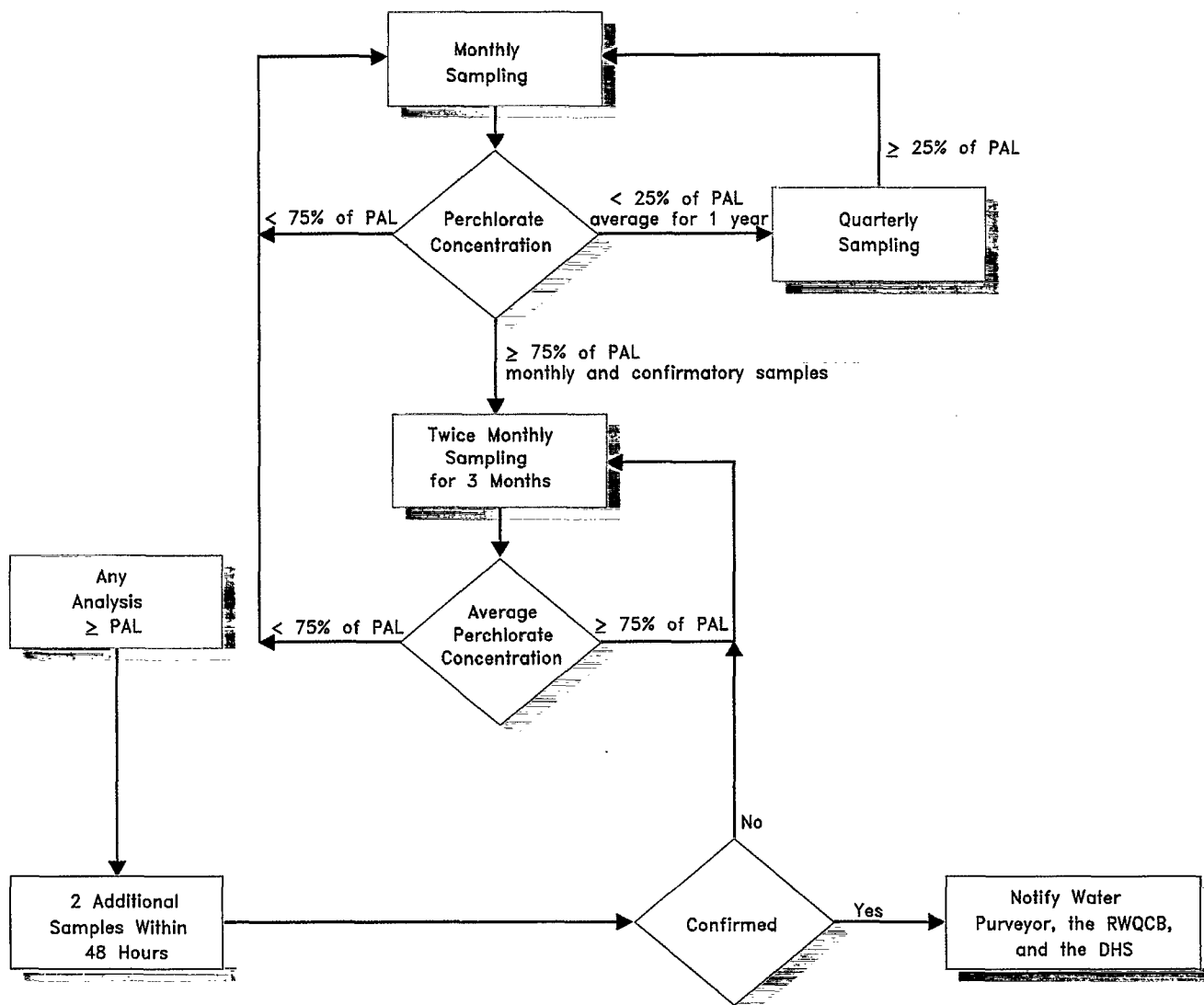
L:\REMEDIATION\LMC\WSCP\CAD\TCMATRIXFIG-3.dwg

TITLE: Decision Matrix for Sampling of Production Wells for TCE from the Crafton-Redlands Plume

LOCATION: LOCKHEED MARTIN
REDLANDS, CALIFORNIA

EARTH TECH
A tyco INTERNATIONAL LTD. COMPANY

CHECKED:	Liles Cobb	FIGURE: 3
DRAFTED:	Lee Mehr	
PROJ.:	38872	
DATE:	04/28/00	



Footnote:

Perchlorate Provisional Action Level (PAL) = 18 µg/L (California Department of Health Services, May 1997)

L:\REMEDIATION\LMC\WSCP\CAD\PERCH.MATRIXFIG-4.dwg

TITLE:

Decision Matrix for Sampling Production Wells for Perchlorate

LOCATION:

LOCKHEED MARTIN
REDLANDS, CALIFORNIA

EARTH TECH



A tyco INTERNATIONAL LTD. COMPANY

CHECKED: Liles Cobb

DRAFTED: Lee Mehr

PROJ.: 38872

DATE: 04/28/00

FIGURE:

4

ATTACHMENT A
FIELD SAMPLE FORMS
(Available Upon Request)

ATTACHMENT B

**CHAIN-OF-CUSTODY RECORDS AND
LABORATORY DATA SHEETS AND LEVEL III MODIFIED
QUALITY ASSURANCE/QUALITY CONTROL DOCUMENTATION
(Available Upon Request)**